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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,607	10/24/2003	Tatsumi Kageyama	1163-0475P	7307
2292	7590	09/01/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			NATNITHITHADHA, NAVIN	
			ART UNIT	PAPER NUMBER
			3736	

DATE MAILED: 09/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	Application No. 10/691,607	Applicant(s) KAGEYAMA, TATSUMI	
	Examiner Navin Natnithadha	Art Unit 3736	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 5-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-13 is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Response to Amendment*

1. Claims 1, 5, and 6 have been amended. Claims 3 and 4 have been cancelled.  
Claims 1, 2, and 5-13 are pending.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeVito, US 6,254,536 B1, in view of Musha, US 6,349,231 B1.

In regards to claim 1, DeVito teaches an apparatus using bioelectrical signals such as EEG for the control of systems (see abstract), comprising: a headband (brain wave detecting unit) 20 having EEG electrodes 23, 24, 25; and a CPU 53 for analyzing each epoch (brain wave patterns), generating control parameters (generating brain wave pattern) based on the epochs, then comparing the control parameters with baseline control parameters for subsequent mapping to control/command codes used by a control system (see col. 10, lines 11-19). The CPU 53 is connected to a memory 56 for storing data pertaining to control parameters and control codes (see fig. 8). DeVito does not teach "when receiving an instruction for associating a brain wave

pattern generated by said brain wave pattern generating unit with an operation description displayed on a display unit, the operation description specifying an operation to be performed on an apparatus to be controlled, said first storing unit stores the generated brain wave pattern therein while associating it with the operation description.” However, Musha teaches an apparatus for automatically determining the present will of a human subject, including: display 160 for displaying the wills (operation description) of the subject based on a neural network using sets of physiological state reference variables corresponding to known wills (see col. 2, lines 19-23). The wills can be “yes”, “no” or neither phrases but not limited to these types of wills (see col. 3, lines 17-57). “The neural network can be trained to recognize other will (such as the will to move a computer cursor up, down, left or right, the will to input the letter “a”, “b” or “c” etc.)” (see col. 3, lines 58-62). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify DeVito’s invention with displaying wills in order to have a human-machine interface which would benefit “patients suffering with symptoms of such diseases as amyotrophic lateral sclerosis (“ALS”), who have near-normal mental function but are unable to express their will” (see Musha, col. 1, lines 37-53).

As to claim 2, DeVito teaches using the apparatus to generate control/command signals to a control system, such as digital video, video games, movies, interactive environments, virtual environments, alarm systems, or other devices or systems, to control its operation. The apparatus to be controlled is only the “intended use” of the

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claimed invention of claim 1. Thus, DeVito's apparatus is capable of controlling the operations of a vehicle.

***Allowable Subject Matter***

3. Claims 5-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter:

As to claim 5, the prior art of record does not teach a apparatus according to claim 1, including comparing the brain wave pattern generated with the plurality of brain wave patterns stored in a storing area of the first storing unit, the storing area being specified by input identification data that identifies a corresponding user.

As to claims 6-13, the prior art of record does not teach a apparatus according to claim 1, including a security determination unit for sending out an electric wave (alarm) indicating a notification that a moving object (vehicle) has been stolen when the moving object information detecting unit detects a change of the status of the moving object while the brain wave detecting unit (EEG) unit does not detect any brain wave.

***Conclusion***

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Navin Natnithithadha whose telephone number is (571) 272-4732. The examiner can normally be reached on Monday-Friday, 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on (571) 272-4726. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Navin Natnithithadha  
Patent Examiner  
GAU 3736  
29 August 2005